

California Head Start Child Outcomes Bulletin 2011



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California Head Start Programs Help Children Reach Developmental Milestones Earlier



Providing the Head Start experience for three-year-olds advances a child's development by an average of 4 to 8 months across all areas of development.

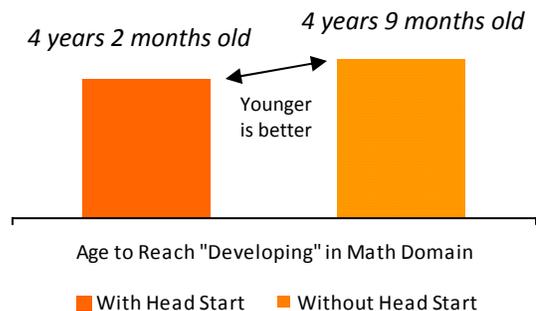
This finding is the result of a rigorous analysis of child assessment data from more than 24,500 children collected from 42 Head Start programs across California.

Using Regression Discontinuity - a methodology widely used to evaluate preschool impacts - it is possible to isolate the impact of participating in the Head Start program as a three-year-old on child development. These findings provide direct evidence that California Head Start programs provide quality child development services and help children to be better prepared for Kindergarten.

Head Start not only helps children to develop in academic areas, such as math and literacy, but in all areas of development — including social interpersonal skills and self regulation.

Head Start Impact - Math

Expected Age at Which a Typical Head Start Eligible Child Reaches the "Developing" Developmental Level on the DRDP-R Assessment



Understanding the Impact on Math

A typical Head Start eligible child who attends Head Start as a three-year-old will be able to count to ten, correctly identify shapes, and understand (& use) concepts like bigger and smaller by the time they are about 4 years 2 months old. A similar child without Head Start, would not reach this developmental level until they are 4 years 9 months old.

Attending Head Start as a three-year-old gives a child a 7-month advantage.

Math was one of the areas where Head Start had the largest impact. This means that, thanks to Head Start, children are more advanced in fundamental skills such as number recognition; comparing, matching and sorting objects; identifying shapes; and recognizing patterns.

The size of the program impact was comparable to what other studies have found in quality preschool programs.

Head Start Children Achieve Developmental Milestones Earlier

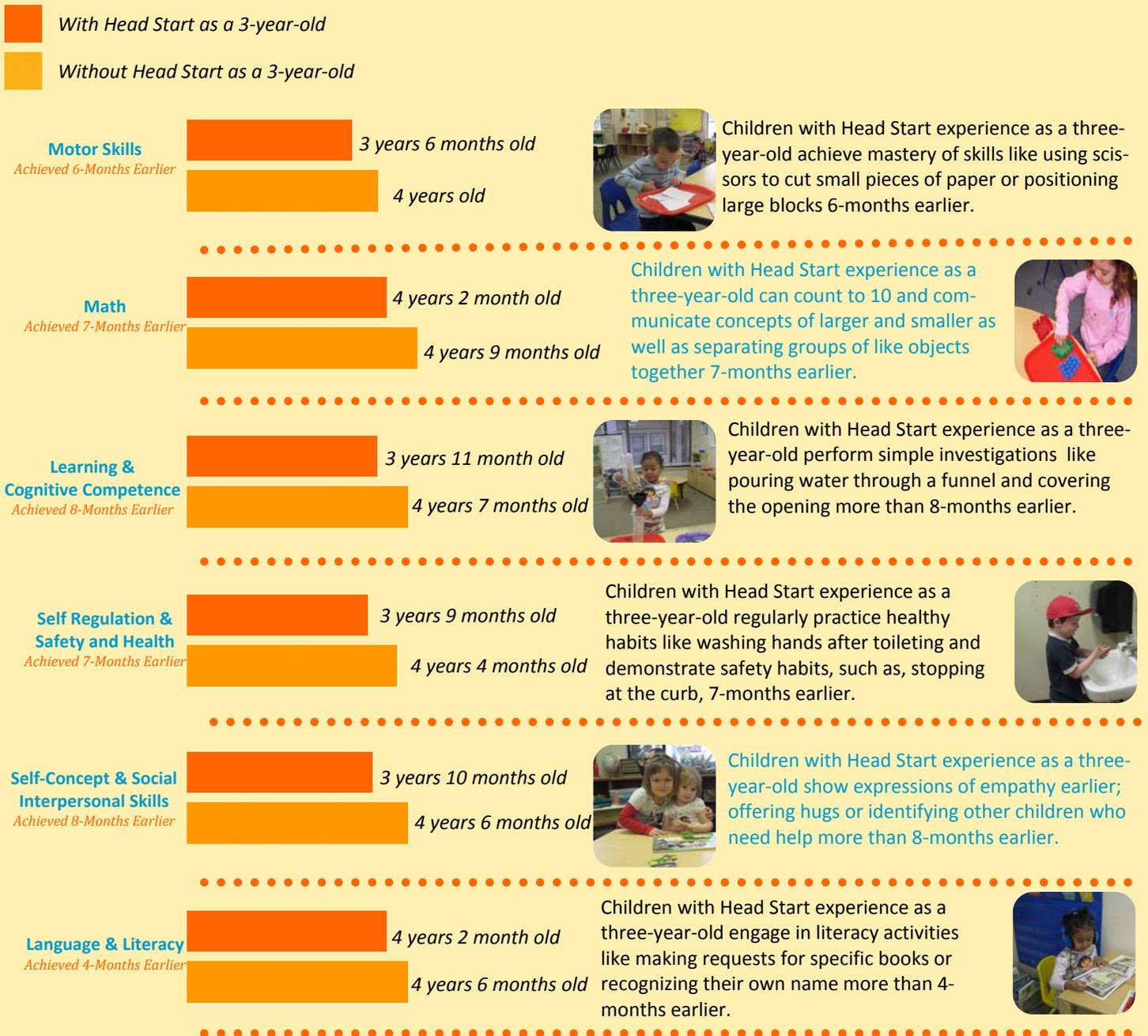
Children with prior experience in Head Start achieved developmental milestones at an earlier age than the comparison group of newly enrolled children controlling for age, race, ethnicity, language, and gender.

The graph below shows the age at which a typical Head Start eligible child reaches the “Developing” developmental level with the experience of Head Start as a three-year-old and without that support. The difference between these two ages is a measure of Head Start’s impact.

For example, a typical Head Start eligible child without Head Start would not reach the Developing level in Language and Literacy until they were 4 and a half years old, but with the help of Head Start as a three-year-old, children reach that level by the age of 4 years 2 months. *For a brief overview of the DRDP-R Assessment, please see the back page.*

Head Start Impact - Younger is Better

Expected Age at Which a Typical Head Start Eligible Child Reaches the “Developing” Developmental Level on the DRDP-R



The Methodology: Digging Into the Details



The Data Set

Desired Results Developmental Profile - Revised (DRDP-R) data was gathered on more than 24,500 children from the 42 participating Head Start programs. The primary data analysis focused on 10,200 center based children. Children with incomplete data sets, not in center based programs, who did not participate in Head Start as three-year-olds, or with identified special needs were not included in the analysis.

The information collected included the assessment scores from the DRDP-R conducted in the fall of 2009. Additionally, demographic data and prior participation in Head Start were considered.

The Analysis

The children were divided into two groups based on whether they were expected to enter Kindergarten in the fall of 2010 or the fall of 2011. All children in the sample who are expected to enter Kindergarten in the fall of 2010 were enrolled in Head Start as three-year-olds the prior year and were beginning their second year of Head Start as four-year-olds at the time they were assessed in the fall of 2009. All children expected to enter Kindergarten in the fall of 2011 were assessed at the beginning of their first year of Head Start in the fall of 2009.

Using Regression Discontinuity, the analysis controlled for development based on how far the child was from the cut-off date for entering kindergarten. Regression Discontinuity has become the preferred methodology for determining the impact of preschool programs over the past ten years

because it eliminates the problem of selection bias. Used with large samples, Regression Discontinuity is nearly as rigorous and reliable as a controlled experiment with random assignment.

Typically, this methodology would be used to evaluate preschool the year before Kindergarten (rather than two years prior) by using assessment data from children entering Kindergarten and those entering preschool. However, the Desired Results Developmental Profile-Revised (DRDP-R) is only used to assess preschoolers and not Kindergarteners. As a result, the analysis could only be used to evaluate Head Start's impact on three-year-olds.

The concept of Regression Discontinuity is easiest to understand by providing an extreme example: consider two children which differ only in that one was born the day before the cutoff date (Dec 1) and another born the day after the cut-off date (Dec 3). We look at the fall 2009 assessment results for both children. The first child serves as the experimental group because she attended Head Start in the previous year. The second child serves as the comparison group because he has just entered and not been exposed to Head Start in the prior year. The methodology eliminates selection bias because both children made the decision (or it was made for them) to enter Head Start as three-year-olds. The statistical model incorporates children born further from the cut-off by controlling for their date of birth compared to the cut-off.

All of the results were statistically significant at the 99.9% confidence level.

Data Limitations

While the analysis demonstrates the effectiveness of the Head Start model, the results cannot be extrapolated to all California Head Starts (the sample is not based on a random sample) or to the impact on four-year-olds.

Head Start is designed as a comprehensive program to support children and their families. This analysis only captures Head Start's impact on child development as measured by the DRDP-R. Other demonstrated outcomes, such as increased medical and dental care and improved family outcomes, are not included.

Technical Information

For a more detailed explanation of the methodology and supporting data, please visit www.childcareresults.com/ChildOutcomes2011

Benefits of Head Start Extend Beyond the Scope of this Analysis

Head Start programs provide a comprehensive care model, including Family Services, Education, Nutrition, Health and Wellness, Disability, and Mental Health services for children and families. This analysis focuses squarely on the developmental measures included in the Desired Results Assessment tool (DRDP-R) and represents only a small portion of the benefits of the Head Start program.

Other research demonstrates the breadth of positive impacts Head Start (HS) can have on the families they serve and society as a whole. Studies show that society receives nearly \$9 in benefits for every \$1 invested in Head Start. These benefits include increased earnings, employment, and family stability, and decreased welfare dependency, crime costs, grade repetition, and special education. Other studies have shown that Head Start children are significantly less likely to have been charged with a crime than their siblings who did not participate in Head Start.

The evidence also shows that Head Start improves the health of the children and families they serve. A much higher proportion of HS children received dental care than those children who did not receive HS services and a higher proportion of parents with three-year-old children in HS reported that their child was either in excellent or very good health as compared with those parents who did not have children enrolled in HS. HS provides health and dental services to children and families who might otherwise not have them. Head Start health training for parents has also been shown to reduce Medicaid costs.

Parents who participate in HS are found to have greater quality of life satisfaction; increased confidence in coping skills; and decreased feelings of anxiety, depression, and sickness. HS children are at least eight percentage points more likely to have had their immunizations than those children who did not attend Head Start.

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The DRDP-R Assessment Tool

The Desired Results Developmental Profile – Revised (DRDP-R) was developed by the California Department of Education. The DRDP-R assessment for Preschoolers includes thirty nine measures within ten indicators. The indicators include fundamental areas of development (e.g. Math, Literacy, Social and Interpersonal Skills) and have been aligned to the Head Start outcome framework domains. Each child is assessed through careful observation by their teachers on the measures of child development. Children are assessed within 60 days of enrollment and either 3 and 6 months later, or only 6 months later. It is data from the first assessment that is used in this analysis.

In validating the tool, researchers combined the indicators into six developmental domains. The analysis in this bulletin reports on these six developmental domains. The analysis does not include the English language learners measures, added in the Head Start version of the DRDP-R.

Within each measure, children score one of four developmental levels:

Exploring
Developing
Building
Integrating

“Developing” is the second developmental level that children pass through in the three- to four-year-old age range. For the purposes of assessing and communicating the impact of Head Start on three-year-olds, this analysis uses Developing as a threshold for comparing the average ages at which children reach the threshold — with and without Head Start.



Acknowledgements

We thank the 42 Head Start programs from across California who contributed their data to this analysis.

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About the California Head Start Association

The California Head Start Association is the unified voice providing leadership and advocacy for the Head Start community.

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The Collaboration

This document and the supporting analysis were constructed through a creative collaboration of Child Care Results, the California Head Start Association, and the forty-two participating Head Start programs listed on the back page. The analysis was conducted by Child Care Results in the fall of 2010. A supporting methodology section can be found on-line at:

www.childcareresults.com/ChildOutcomes2011

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An electronic copy of this report is available at:
www.caheadstart.org/ChildOutcomes2011

About the Head Start Program

Head Start/Early Head Start is a federally funded comprehensive child development program for very low-income young children and their families. Since its inception in 1965, more than 20 million children and families nationally have benefited from Head Start's comprehensive services. Statewide, this number is in excess of one million children and families. The primary target population for Head Start/Early Head Start is pregnant women and families with children 0-5 living at or below the poverty level .